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ABSTRACT

The architects, with the teaching staff, administration, students, and community, worked as a team to make a coordinated statement of the physical, functional, and esthetic proposals for a new school. The space and functional requirements of each teaching area have been documented and analyzed to arrive at a realistic appraisal of need for the school. For each space, floor area equipment needs and environmental characteristics have been established. In addition, for each teaching area, an organizational diagram showing the desirable interrelationship of the spaces and functions has been developed. Other elements treated in the report are the number and allocation of staff, site description, outline of the educational program and objectives, organizational plan, construction methods and materials, and mechanical and electrical systems. An architectural drawing of the proposed school is included. (Author/MLF)

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RA 008 662

ED 128 893

U S DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

DESIGN DEVELOPMENT PLANS

for

ALTAMONT JUNIOR HIGH SCHOOL
Klamath Falls, Oregon

3

Klamath County School District
Klamath Falls, Oregon

September 1971

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THE DESIGN TEAM

LUTES & AMUNDSON, AIA
Architects

BALZHISER & COLVIN, CONSULTING ENGINEERS, INC.
Mechanical Engineers
Electrical Engineers

HERRICK AND IMPER, INC.
Structural Engineers

WALLACE M. RUFF ASSOCIATES
Landscape Architects

ROBIN M. TOWNE AND ASSOCIATES
Acoustical Consultants

ROBERT W. WHITNEY
Food Service Consultant

LUTES & AMUNDSON, AIA
A PROFESSIONAL CORPORATION
Two Hundred South Mill Street P.O. Box F
Springfield, Oregon 97477 503-746-8231

KLAMATH COUNTY SCHOOL DISTRICT

Mrs. Virginia McGaughey
Mr. Warren Lough
Mr. Delbert Parks
Dr. James Creswell
Mr. Robert Horton, Chairman

James Conroy
Superintendent
Charles Steber
Assistant Superintendent
John Mathis, Principal
Altamont Junior High School

Robert Ellison
Physical Plant Director

FOREWORD

The information presented in this study is directed toward developing a better understanding of the design background of this middle school. The goals, facts and needs of the educational program have been analyzed and synthesized into a design concept for the building. This concept has been evaluated, re-evaluated, tested and molded with the teaching staff, administration, students and community into a coordinated statement of the physical, functional and esthetic proposals for the school.

Readers will gain from this report, not only the background of the building design, but also an insight into the educational goals and objectives of the district. Some of the goals and objectives of both program and building are ordinary, some are new and unique. The value of each will be determined ultimately by how well it serves the needs of educating the students in this building.

As this building program is developed into the technical language of the building industry, it will be attempted to maintain a simple to construct, durable and esthetically acceptable educational facility.

John M. Amundson, AIA
Project Director

September 1971

STUDENT BODY AND FACULTY

Altamont Junior High School will replace the existing junior high school serving suburban Klamath Falls and the surrounding rural area. Almost all of the students from this school will attend high school in the Klamath Union High School District.

It is anticipated the school will have a beginning enrollment of 600 students and will remain relatively stable. This size has been established as the optimum to attain the educational objectives of the two-year program. A larger enrollment would increase curriculum problems and require doubling the physical size of some of the basic areas of the school Therefore, the building is to be designed for this enrollment with nominal options for additions to the building. It is anticipated that adjustment in attendance boundaries will maintain the school enrollment at this size and at the appropriate time another junior high school would be built to serve any increased population growth.

The faculty size will be maintained to serve the enrollment of the school. The anticipated staff with a basic student-teacher ratio of 30 is projected as follows:

Certificated

Core	9
Mathematics	3
Science	2
Home Living	1
Foreign Language	1
Developmental Reading	1
Arts & Crafts	1
Music	1½
Physical Education	2½

Librarian	1
Vocational Arts	1
Dean of girls	1
Dean of Boys/Asst. Principal	1
Principal	1
Total	27

Non-Certificated

Para-Professionals	4
Home Living	1
Vocational Arts	1
Arts & Crafts	1
Library Aid	1
Custodians	2
Secretaries	1½
Food Service	3¼
Total	10 3/4
Total Staff	37 3/4

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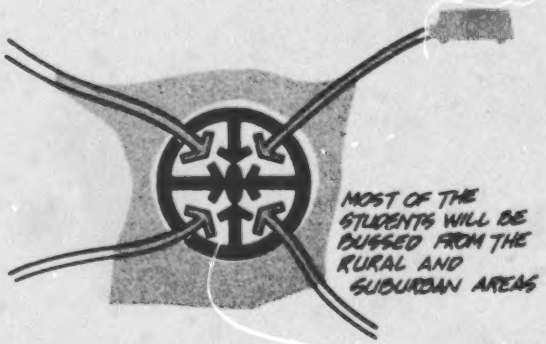


THE SITE

A site has been selected on Homedale Road approximately one mile south of Oregon 140. The site is 22.22 acres in area and is rectangular in shape, approximately 750 feet wide and 1290 feet long. It is flat with a slope of about four feet from south to north. The site is bounded by Homedale Road on the west, USBR A-3 irrigation lateral on the north and east, and farm land on the south. The site has been occupied up to the present time as a dairy and has no improvements other than cattle fencing.

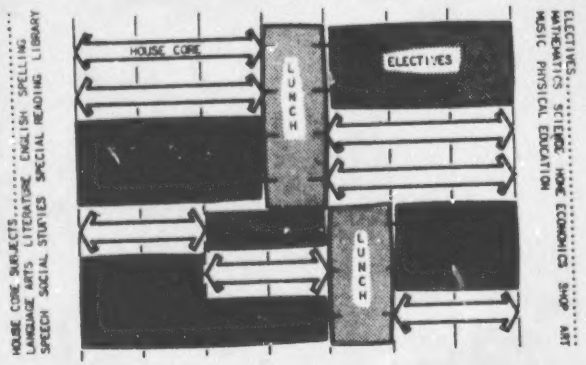
The site is well located in reference to its service area and has appropriate access. It will allow those students in the immediate vicinity to come by foot or bicycle traffic. For more distant students, access by buses will be convenient from all directions. This will be improved when the extension of projected highways to the south has been accomplished.

It is anticipated that Homedale Road will be widened in the future and a reservation of additional right-of-way has been provided in the acquisition of the site. Until such time as widening is required, this property will be used for additional landscape buffering from the existing street.

Basic utilities are either immediately adjacent or readily available to the site. Water and sewer service are immediately north and west of the site in Homedale Road. Telephone and power service is available along Homedale Road from existing facilities. There is no gas in the immediate area, however, it is anticipated that gas service lines will be installed in the area in the near future to serve several planned subdivisions.

THE EDUCATIONAL PROGRAM

The Educational Program for this Junior High School is anticipated to consist of four closely related components. The first part; a major emphasis upon language arts, spelling, social sciences, consists of a block of time, two or three periods long, in which the students are scheduled with the same teaching group. This group will consist of approximately 30 students in a home room combined into a "House" of 90 students. The second part of the program is devoted to those single or multi-period classes of basic courses, such as mathematics, science, physical education and health. The third part of the program consists of regularly scheduled exploratory courses, developed by the staff and students, in which the student can participate in new and varied experiences to identify particular interests. The final part of the program provides for specialization or exploration in special interest areas of music, art, homemaking, and vocational training.



The basic part of the educational program in the Middle School is the two or three period core program. The Seventh Grade House, consisting of three classrooms of 30 each, will meet for a three period session each day with the same teaching team of 3 teachers and teachers' aids. This session is devoted to a program of common learning, information and guidance on a team teaching basis. The three classes can either be operating independently, in special interest groups, in combined groups, or combinations thereof. These house groups will undertake a series of individual or group studies depending upon their individual team programs.

The eighth grade group will have a similar schedule of classes. The Social Living House however, will be only a two period session with the remainder available for individual student electives.

Foreign language, journalism and speech are electives undertaken by those students who desire them and show capability of accomplishment. A program of reading instruction of either a developmental or remedial nature is also available to students in the core program.

All students are required to take a basic series of mathematics, science and physical education courses. The remainder of the class periods can be selected from electives in music, art, homemaking, and vocational training.

It is anticipated that the program will function on a seven or eight period day.

Based upon the program in the existing Altamont Junior High School, the curriculum program has been projected as follows:

SEVENTH GRADE

Class		Students/Class		No. Students
10	Core Program	30	3 periods	300
10	Math	30		300
10	Science	30		300
1	Chorus	75		75
3	General Music	30		90
2	Band	75		150
3	Art	30		90

SEVENTH AND EIGHTH COMBINED

Class		Students/Class	No. Students
7	7th Boys PE	21	147
7	8th Boys PE	22	154
7	7th Girls PE	22	154
7	8th Girls PE	21	147
7	7th Boys Shop	15	105

Seventh and Eighth Combined (continued)

Class		Students/Class		No. Students
7	8th Boys Shop	15		105
7	7th Girls Home Ec.	15		105
7	8th Girls Home Ec.	15		105
7	7th Reading Class	15		105
7	8th Reading Class	15		105

EIGHTH GRADE

Class		Students/Class		No. Students
10	Core Program	30	2 periods	300
10	English	30		300
10	Math	30		300
4	Science	30		120
4	Art	30		120
2	Foreign Language	25		50
1	Journalism	25		25
2	Band	75		150
1	Chorus	75		75

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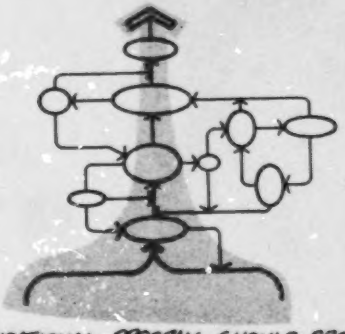
STUDENTS FROM THIS SCHOOL WILL GO TO HIGH SCHOOL IN ANOTHER ADMINISTRATIVE DISTRICT - K.U.H.S.



THE EDUCATIONAL PROGRAM SHOULD PROVIDE A "BASE OF KNOWLEDGE" AND A "PROCESS OF LEARNING"

THE DESIGN SHOULD ENCOURAGE THE DEVELOPMENT OF NEW TEACHING METHODS

THE DESIGN CONCEPT

This project presents an opportunity to explore the unique problems of the design of an educational facility for a particular age group which is unusual, not only in that it is of only two years span, but also that students are experiencing a high rate of transition through the adolescent age period. In addition, the group attending this school is unusual in that all graduates will attend a high school program in another administrative district. Thus, this is the last opportunity for this District to use its educational advantages of small size, individualized educational program, and personalized consideration to assist the student in his personal and educational growth.

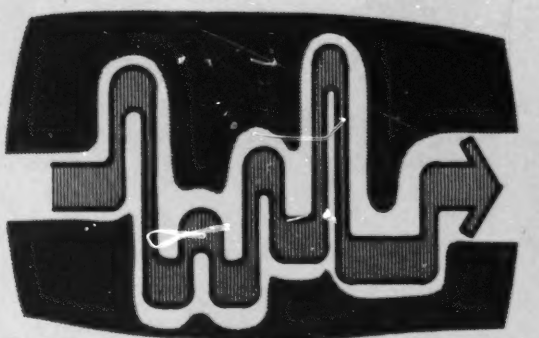
The Architects and members of the District staff have worked as a team through a series of Concept Seminars to establish the program for the building. In addition, representatives from the teaching staff, the local community group, and the present student group have participated in discussion seminars. Thus, the development of the design concept has been a participatory process among the Architects, the District staff, the teaching staff and the Community.

The following planning goals were established for the project:

EDUCATIVE. The school should provide the student with a "base of knowledge" and a "process of learning" for continued education.

EFFECTIVE. The design of the building should allow and encourage a transition from traditional compartmentalized teaching methods to integrated team methods and should not stand in the way of either during the transition period.

THE BUILDING SHOULD PROVIDE A PHYSICAL AND PSYCHOLOGICAL ENVIRONMENT FOR "TEEN AGE TRANSITION"



THERE SHOULD BE OPPORTUNITIES FOR EXPLORATION OF A VARIETY OF HUMAN VALUES & FIELDS OF KNOWLEDGE WITH MEANINGFUL GUIDANCE.

EFFECTIVE. The building should provide the physical and psychological environment for teenage transition from elementary classroom "dependency" to high school "independence".

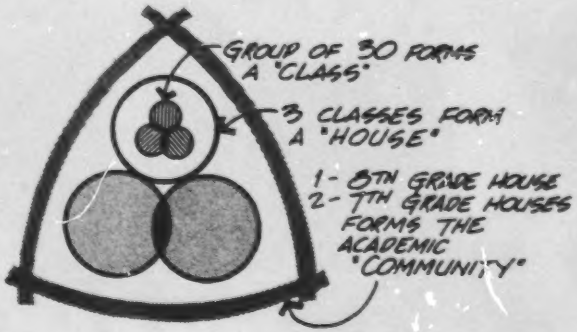
EVALUATIVE. The building should provide the opportunity for the exploration of and exposure to, a variety of human values and fields of knowledge with meaningful guidance.

AESTHETIC. The school should present a feeling of "Community Center" to the surrounding community and be adaptable for such activities as:

Adult education - library, classrooms, shops, arts and crafts,
Recreation - Gymnasium, dressing rooms, in-door and out-door spaces,
Community Service - Public Service Meetings, banquets, and lunches.

ECONOMIC. The building should provide a "quality environment for effective education" at the available economic level of funding.

These goals were set forth as being the most important and desirable to achieve in the building project. In addition, a time goal was established for the design of the building. This schedule anticipates the completion of the design and contract documents by early 1972 with construction beginning immediately thereafter. Under this schedule, the major portion of the building will be available for occupancy in the late Fall or early Winter of 1972.



FUNCTION.

The organization of the Academic Area of the school will be based upon the House concept. A group of 30 students forms a House class. Three classes of 30 students or 90 students form a House. On the basis of 600 students, a three period seventh-grade house session and a two period eighth-grade house session, three houses are in session simultaneously and create the Academic Community. The Resource Center must be readily available to all of the Academic House units. There should be the least obstruction possible for the movement of students between the Resource Center and the Houses. The Houses, however, should be insulated from visual and acoustical intrusions and the distractions caused by circulation of students from other areas of the school to the Resource Center.

A high priority should be given to the development of a sound educational program by the student for high school studies and every day life. Top priority should also be given to the development of personal responsibility and value systems by the student. These priorities shall prevail where the need to make a design choice is necessary.

FORM

The teaching functions to be housed in the building and the manner in which they will be conducted determine the design or "FORM" of a school building. Each "Programmatic Concept" will produce a "Design Concept" for the building or a part of the building. The actual design should reflect these concepts. These concepts have been carefully analyzed and evaluated to determine the validity of each and to assure it will provide the

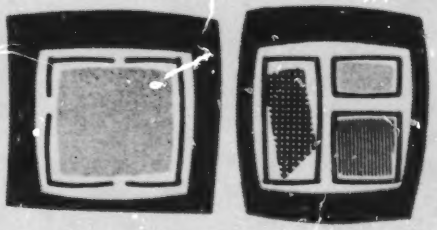
most beneficial and economical project. The Programmatic concepts and their Design Concepts are summarized in the following considerations of FUNCTION, FORM, ECONOMY and TIME.

ACADEMIC AREA SHOULD BE "INTEGRATED"

ACTIVITY AREA SHOULD BE "COMPARTMENTED"

The Academic Area of the school should have integrated spaces in which the easy flow of students from one area to another are easily facilitated. Classrooms and seminar rooms should have the minimum, if any, physical boundaries. Each should flow easily to the other and both should be accessible to the Resource Center. Students should be able to establish an independent or group area in any of these spaces to undertake a specific project assignment. Such integrated spaces should facilitate staff-student interaction and promote the utilization of the "material resources" of the Resource Center and the "human resources" of the staff in the learning process.

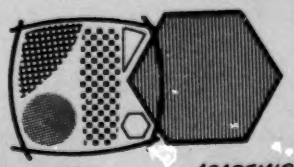
The Activity Areas of the school should, on the other hand, be compartmentalized into individual rooms or spaces to recognize the equipment, acoustic or activity needs of particular programs. Thus, Physical Education, Music, Vocational Arts, Home Living and Arts and Crafts should each have individually designed spaces.



ACADEMIC AREAS SHOULD BE ADAPTABLE TO A VARIETY OF ROOM SIZES AND USES

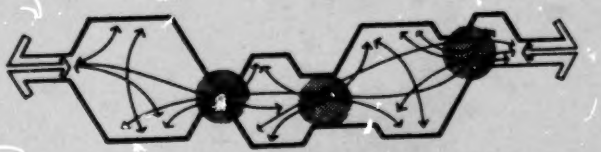
The Academic Areas of the school should be capable of being converted in a short period of time to a variety of sizes of classes and activities. Classrooms should be expandable to large group rooms, or divisible into seminar spaces for smaller groups. Thus, the same space can be useable for many activities.

The Activity Areas should be multi-functional with each space serving a variety of activities within the same floor area and same equipment. The Forum should serve as cafeteria, lounge, auditorium, study area, and community meeting hall. The gymnasium should also serve as school assembly hall or community activity center.

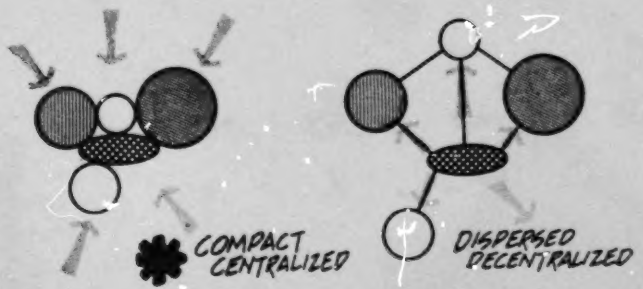


PUBLIC AREAS SHOULD BE CASUAL MULTI-USE UTILITARIAN

ACADEMIC AREAS SHOULD BE FORMAL INTEGRATED CONTROLLED



CIRCULATION SHOULD ENCOURAGE INFORMAL INTERACTION BETWEEN STAFF AND STUDENTS



COMPACT CENTRALIZED

DISPERSED DECENTRALIZED

The design of the building should distinguish between the Academic community with its formal, integrated, and finished spaces and the activity or public areas which should be more casual, multi-functional and more utilitarian in finish.

The design of circulation spaces should encourage the maximum interaction of staff and students on an informal basis so as to capture the advantages of an informal, but guided, learning process.

The building should be designed in a compact and centralized manner rather than a dispersed and de-centralized manner to accommodate an easy flow of students and staff from one area to another, particularly during inclement weather.

The accomplishment of these design goals will aid in satisfying the functional requirements of the educational program, namely:

* the need for variable size groups,
* the need for variable instructional methods and materials, and,
* the need for variable staffing patterns.

The design concept of the school can be summarized by the following statements:

Because the students are making a transition from classroom dependency to independency, the design should maximize opportunities for staff-student contacts to encourage both formal and informal learning. There should also be opportunities for student-student interaction which will provide for exposure to a variety of human values under meaningful guidance.

Because of the transition from individual, compartmented teaching methods to team, integrated methods, the design should en-

courage the integration of spaces and free circulation among them while still allowing for separations as required by the teaching program.

Because the facility will be available for community use, it should be easily accessible and sub-dividable by functional area for security and maintenance.

Because a close budget condition exists, all spaces - particularly circulation should be carefully considered and made multi-functional for a high level of utilization. All materials and methods of construction should be designed to their highest efficiency and some areas may be deleted or unfinished.

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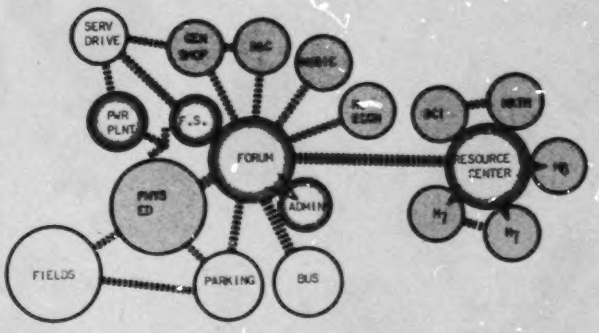
THE BUILDING FACILITIES PROGRAM

The space and functional requirements of each teaching area have been documented and analyzed by the staff and architects to arrive at a realistic appraisal of need for the school. For each space, floor area equipment needs and environmental characteristics have been established. In addition, for each teaching area, an organizational diagram showing the desireable inter-relationship of the spaces and functions has been developed.

The total floor area requirements indicates the net useable projected area which will be required for the school. To this must be added floor area for circulation space and wall area to arrive at a total Gross Projected Area. This area represents the optimum allowable goal for the design of the school.

The equipment needs, functional needs and environmental characteristics establish the basis for the layout, organization and design of each teaching area. This overall statement comprises the Building Facilities Program for the project. The Program, along with detail information on equipment and furnishings, represents the most recent thinking of the staff, administration and School Board about the needs for the project and provides the Architect with a realistic basis for building design.



BUILDING FACILITIES PROGRAM
SPACE AND AREA SUMMARY

Core Program Houses	9,225 sf.
Resource Center	5,285
Mathematics	3,075
Science	2,600
Home Living	2,000
Arts and Crafts	2,300
Music	2,550
Vocational Arts	3,200
The Forum	5,000
Food Service	1,905
Physical Education	13,625
Administration	1,720
Physical Plant and Services	4,620
NET USEABLE PROJECTED AREA	57,105
CIRCULATION AND BUILDING AREA - 12%±	7,895
TOTAL GROSS PROJECTED AREA	65,000 sf.

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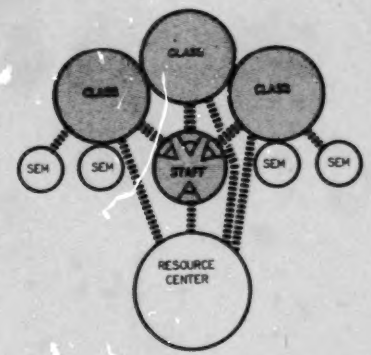

CORE PROGRAM HOUSES

PROGRAM

The academic house session of two or three periods per day is devoted to developing a base of knowledge and a process of learning in the common areas of social studies and language arts. This basic learning core is developed through the study of historic geographic and civic background material and the utilization of this material on analytical problem solving. It is attempted to give the student an understanding of, appreciation for, and faith in, the democratic way of life together with essential character and skills.

The Language Arts skills of reading, speaking, listening and writing are developed concurrently by working with Social Studies material as a medium. A speech program is emphasized in the house for all students with outstanding ones participating in an extra curricular county-wide speech festival.

Supplementing these studies, the Academic House provides the base for a guidance program in the areas of social, family, personal and vocational relationships and understandings.

SPACE

Classrooms	800 sf	(8)	7,200 sf
Seminar Rooms	75 sf	(12)	900 sf
Teachers' Team Offices	375 sf	(3)	1,125 sf
Total			9,225 sf

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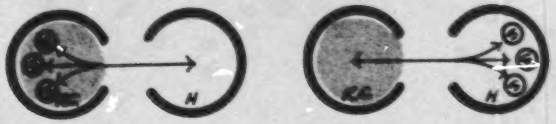
ORGANIZATION

Three classrooms should be arranged together to create an Academic House. These rooms should be expandable and contractible to create larger or smaller rooms for varying size groups. Seminar areas should be immediately available to each classroom for small group work. The Team Office should be directly accessible to the classrooms, the seminar areas and the Resource Center to allow continuous interaction with the student. The Academic House should have immediate directional unobstructed access to the Resource Center on a continuing basis. These spaces should be integrated into a singular educational environment.

HOUSES SHOULD HAVE INTEGRATED SPACES WHICH PROMOTES STAFF-STUDENT-RESOURCE INTERACTION

STAFF SHOULD BE AVAILABLE TO ASSIST STUDENTS IN BOTH HOUSE AND RESOURCE CENTER



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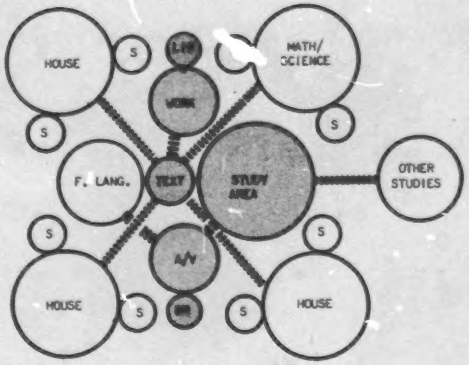
RESOURCE CENTER



PROGRAM

The Resource Center is envisioned as an integral part of every learning situation in the school, particularly in the Academic Houses. As a service center to staff and students, the Resource Center supplies all forms of material, knowledge resources to support the instructional program. These resources will be an integral part of the social living program and support information for other programs.

To perform this service to the school community, the Resource Center must provide for the housing, use and loan of variety of materials according to content and purpose -- curriculum support, research, reference, supplementation, enrichment, stimulus, cultural improvement, entertainment, enjoyment and recreation.

The Resource Center must be suitably staffed with trained personnel for the variety of duties required in materials procurement, processing, maintenance, use-guidance and circulation.

The Resource Center will house and distribute all audio-visual material and equipment to departments and classes and to individual students for independent study. The Language Reading Lab will be an integral part of the Resource Center, available to the Academic Houses for reading development. This space will also be available for speech therapy and foreign language teaching and oral tests, examinations, etc.

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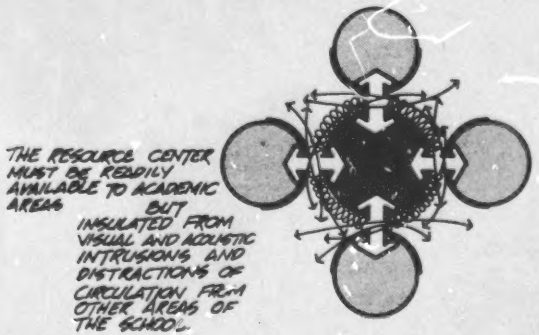
SPACE

Resource Center	2,100 sf
Reserve and Reference	675
Circulation, Desk	100
Librarian's Office	80
AV and Instructional Aids	650
Book Storage (5000 volumes)	150
Library Work Room	400
General Storage	200
Language-Reading Lab	800
Language Lab Office & Storage	130
Total	5,285 sf


THE RESOURCE CENTER MUST BE READILY AVAILABLE TO ACADEMIC AREAS BUT INSULATED FROM VISUAL AND ACOUSTIC INTRUSIONS AND DISTRACTIONS OF CIRCULATION FROM OTHER AREAS OF THE SCHOOL

ORGANIZATION

The Resource Center should be an integral part of the singular educational environment of the Academic Center. It should be arranged to provide coordinated resource centers with the Academic Houses arranged for easy supervision and assistance of students undertaking independent or small group studies.

Access to other departments should be direct and easy and create minimum interference of study activities in the Center.

MATHEMATICS

PROGRAM

The mathematics program is geared to make available to all students, a mathematics background suitable to their individual level of ability and speed of comprehension. Course offerings range from remedial arithmetic to accelerated courses in algebra.

SPACE

Classrooms @ 800 sf	(3)	2,400 sf
Team Office		375
Seminar Rooms @ 75 sf	(4)	300
Total		3,075 sf

ORGANIZATION

The arrangement of rooms can be similar to that of the Academic Houses. Classrooms will remain individual and independent. Seminar rooms should be designed for independent study Access to the Resource Center should be immediate and direct.

27

SCIENCE

PROGRAM

The seventh grade science program will be oriented to the life sciences of botany, biology and zoology. The program will provide actual functional experiences in which the students and teachers indulge in real science experiments. As many open-ended projects as facilities and time allow will be undertaken to nurture the creative spirit of all ability levels.

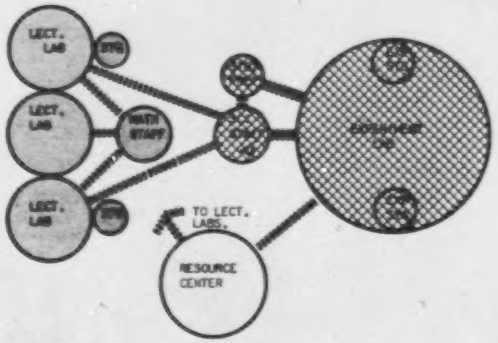
The eighth grade science program will be based on the use of the Intermediate Science Curriculum Studies, science program kits in which the student undertakes a prepackaged experiment at his own speed. This program will be oriented toward the level two-chemistry program.

SPACE

Experiment-Lecture Labs @ 1,100 SF (2)	2,200 SF
Staff Office	200
Storage	200
Total	2,600 SF

ORGANIZATION

The lab spaces should be capable of arrangement in a variety of ways to accommodate the experiment at hand. Table arrangements for biological, chemical and physical experiments should be possible as well as open floor space for large scale displays and assemblages.



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Storage for individual experiment kits and equipment should be available within the lab. Water, air and gas should be available at selected locations for coordination with varying furniture and equipment arrangements.

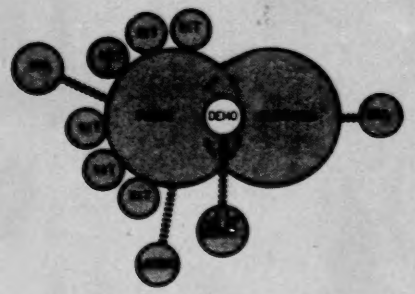
29

HOME LIVING

PROGRAM

Home Living is an elective exploratory program, providing a basic introduction to the skills and activities of home management. It assists students in learning more about themselves and accepting themselves as they are. It also provides some basic skills useable in the home, such as child care, babysitting, cooking, sewing and home management. The students can express themselves in a creative way through these skills.

Both programs will be conducted simultaneously on a coordinated basis under the direction of an instructor with para professional aid.



SPACE		
	Sewing and Food Lab	1,800 SF
	Office	200
	Total	2,000 SF

ORGANIZATION

The facility should be a single integrated space containing both a sewing and a cooking lab.

30

ARTS AND CRAFTS

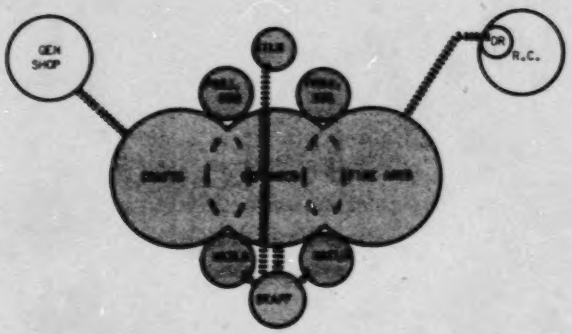
PROGRAM

The Arts and Crafts program is an elective exploratory course in a wide variety of crafts and craft materials. The student can be individually creative with visible results and improve their coordination, dexterity and artistic concepts.

Exploratory programs in various areas will be conducted simultaneously under the direction of an instructor with para-professional aid.

SPACE

Arts and Crafts Lab	1,800 sf
Supply Storage	150
Project Storage	200
Office	150
Total	2,300 sf



ORGANIZATION

The facility should be a single integrated space with organized areas for a variety of art and craft activities including drawing, painting, ceramics, jewelry, flat work, and sculpture.

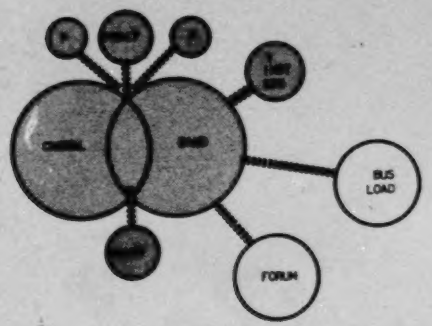
13

MUSIC

PROGRAM Band and Chorus are elective exploratory programs providing individual or group creative expression. The program may also provide the recognition of individual talents worth of wholesome cooperative and respectful attitudes in group participation.

SPACE

Instrumental-Choral Room	2,000 sf
Instrument Storage	350
Office-Music Storage	200
Total	2,550 sf

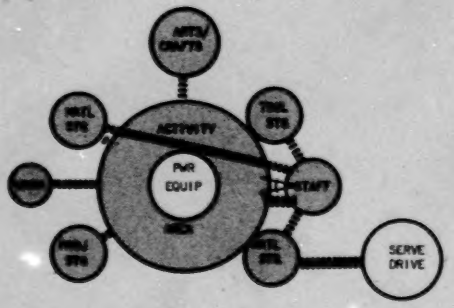


ORGANIZATION

The facility should be arranged to provide for the easy transition from instrumental to choral use. Easy access should be provided to instrument storage areas. Visual supervision of the music room from the office should be direct. Outside access to bus loading should be easy.

32

VOCATIONAL ARTS



PROGRAM The Vocational Arts is an exploratory program in the development of skills and knowledge of tools and materials. Programs of different types will be conducted through the year depending on student interests. The program will provide basic skills for later use in vocational endeavors as well as in hobby and avocational activities.

SPACE

General Shop	2,400 sf
Demonstration	50
Project Storage	400
Material Storage	200
Office	150
Total	3,200 sf

ORGANIZATION

The space should be organized to accommodate a variety of shop activities on a programmed basis. Programs offered may include; metal, electronics, plastic, and small machines. Arrangements of tool storage benches and equipment should recognize these diverse activities.

33

STUDENT FORUM

PROGRAM

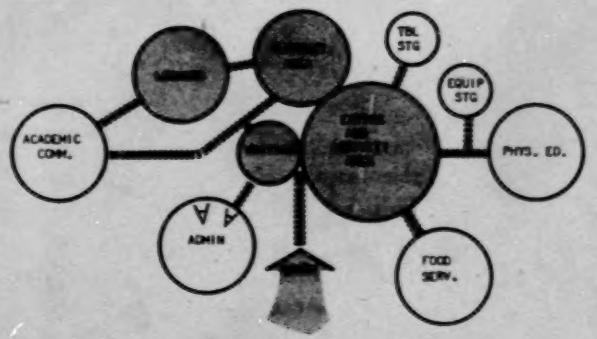
The Forum will be an informal multi-functional area used by students, staff and community. This area will be the first opened in the morning and the last closed at night for the use of students. Group and individual activities throughout the day will be structured and unstructured, formal and informal depending on the situation.

The Forum will also be used for large group student meetings and assemblies. Community meetings also will be held in this space.

Food service providing a Class A lunch will be available. For those bringing their own lunch, milk will be available.

SPACE

Dining Area	(300 Spaces)	3,000 sf
Student Informal Lounge		500
Table-Chair Storage		200
Snack-Concessions		100
Student Lockers		1,200
Total		5,000 sf



ORGANIZATION

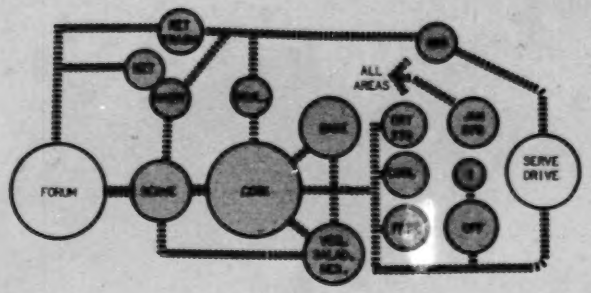
The Forum should be highly flexible and multi-functional use space accommodating a wide variety of activities. The space should accommodate 300 for dining. A raised area should accommodate simple presentations of music and community meetings.

34

Although the basic furnishings will be round tables and chairs, a variety of furnishings may be used; lounge furniture patio tables and chairs, picnic tables, and soft seating. Some parts may be carpeted to emphasize seating areas.

35

FOOD SERVICE



PROGRAM The food service program will provide facilities for storage preparation, serving, and cleanup for a Class A daily school lunch program and for various community uses.

SPACE

Serving Line	400 sf
Food Preparation	150
Baking	80
Cooking Area	280
Dish Wash - Scullery	320
Food Storage	320
Refrigeration	150
Office	75
Staff Lockers - Toilet Room	50
Garbage-Cleanup	80
Total	1,905 sf

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PHYSICAL EDUCATION

PROGRAM

Every student in the school should get an equal opportunity to participate in games or activities. The physical development of all, not just some, individuals should be the ultimate goal. The student should achieve a sense of values of sportsmanship plus the knowledge and fundamentals of games and activities which may be of personal interest to him.

Physical conditioning, coordination, agility, balance, and the improvement of positive, health and mind are fundamental objectives of the program.

For those interested, the program also offers participation in extra curricular team sports in football, wrestling, basketball, and track.

SPACE

Gymnasium	9,350 sf
Equipment Storage	300
Boys' Shower	400
Locker Room (50 PE + 40 athletic)	1,375
Toilet	100
Boys' Staff	300
Girls' Shower	400
Locker Room (50 PE)	775
Toilet	100
Girls' Staff	300
Athletic Uniform Storage	225
Total	13,625 sf

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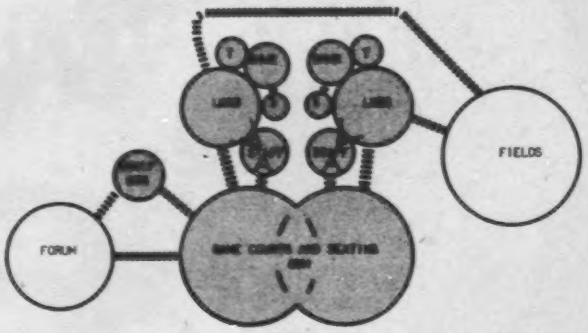

ORGANIZATION

The gymnasium should accommodate at least four teaching stations for the physical education program in a variety of team activities. The gymnasium should also provide a main basketball floor with spectator seating and be adaptable as a meeting hall to seat the entire student body of 600.

Dressing rooms should have access to both the indoor activity spaces and the outdoor play fields.

PLAYFIELDS

440 yard Track with Football Field
2 Foot ball Fields
1 Soccer Field
4 Softball Fields
Game Field
2 Basketball areas.

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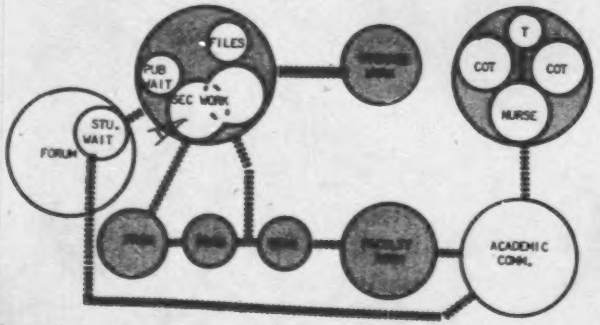
ADMINISTRATION

PROGRAM

The Administration Area is the control center of the school complex. Here, all administrative activities and records are housed. Student counseling and health activities are located here.

SPACE

Lobby, Waiting	120 SF
Office and Work Room	250
Work and Storage	150
Principals Office	150
Vice-Principal / Dean of Boys	120
Dean of Girls'	120
Nurse and Health Rooms (2 bunk rooms)	350
Staff Lounge	460
Total	1,720 SF



ORGANIZATION

The area should be readily accessible to all parts of the school and to the public. Students should find it easy to visit counselors, staff and health personnel in the area. The staff lounge will be an informal meeting place for all staff apart from their assigned teaching areas.

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PHYSICAL PLANT AND SERVICES

PROGRAM

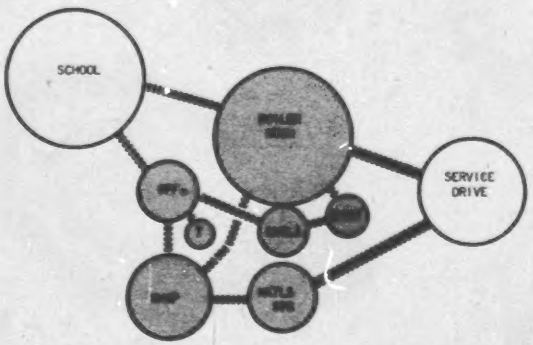
Adequate space is required for mechanical equipment to heat and ventilate the building, and for maintenance and repair activities. In addition, there needs to be adequate toilet room facilities, custodial rooms and storage space throughout the building to serve the students, staff and public.

TOILET FACILITIES:

	Ratio	No. Req'd.
300 Boys		
Water Closets	1:60	5
Urinals	1:30	10
Wash Fountains	1:60	5
300 Girls		
Water Closets	1:30	10
Wash Fountains	1:60	5
Drinking Fountains	1:75	8

SPACE

Boiler and Equipment Room	1,200 sf
Supply Storage	200
Shop and Work Area	160
Toilet and Dressing	100
Equipment Rooms (5 @ 400)	2,000
Student Toilets & Custodial Storage	
Academic Area (2 @ 240)	480
Forum and Activity areas (2 @ 240)	480
Total	4,620 sf



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40

EXTERIOR FACILITIES

PARKING	Staff Parking	35
	Visitor Parking	5
	Open field parking for athletic events	
BICYCLES	100 spaces in racks Near main entry	
BUS ACCESS	10 evening loading berths 5 morning unloading berths Space for large group waiting	
LANDSCAPE	Noise buffering from street Pedestrian and bicycle access Building area planting Biological gardens and experimental areas	

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DESIGN DEVELOPMENT PLANS

The size, function, and facilities for each teaching area has been designed to fulfill the needs expressed in the Building Facilities Program. As the building concept and design have evolved, some adjustments in the Program have been made by re-evaluation of previously developed information. Staff and administration have provided continuous evaluation and new input through the design stage.

The overall building is composed of three basic units -- the House Community, the Forum Area, and the Activity Area. The first two units are very similar in construction; the latter contains those areas with special space needs of height or size. The units are interconnected by circulation spaces which serve as informal or supplementary meeting spaces.

The House Community is composed of the Resource Center; with work space, AV storage and language-reading lab - surrounded by three social living houses and one mathematics suite. Each house is composed of three home rooms and has an office space for the teaching team directing that house. The houses have flexible and moveable partitions between each which can be located to create a variety of sizes of teaching spaces. A 30-student classroom, a large group lecture room, seminar and work rooms or individual study spaces can be created easily and rapidly. The houses are immediately and directly accessible to the Resource Center as there are no intervening walls or corridors.

The Forum creates the central space of the center unit. This area serves as cafeteria, lounge, auditorium, study area, and community meeting hall. A central raised platform serves as stage, seating space and focal point of the Forum.

Lockers, one for each of the 600 students, are arranged around the periphery of Forum where they are easily accessible to students as they move from class to class.

The more specialized teaching areas of Science, Home Living and Arts and Crafts surround the Forum. Students will be able to observe some aspects of these activities, thus broadening their interests.

Food service facilities are located adjacent to the Forum. A Class A lunch will be served to all desiring students. The kitchen will also be available for community programs and snacks for events in the gymnasium.

The Administration Area is also located adjacent to the Forum. It opens directly to the Forum for both student and public access. A student store, attendance window and office window open to the Forum.

The gymnasium forms the major part of the Activity Area. This space is divided by free standing bleachers into a court area for basketball, volleyball, etc. and an activity area for gymnastics, dances, wrestling, etc. Adjacent dressing rooms serve both the gymnasium and the exterior fields and courts.

The Music Room is multi-purpose. It's stepped floor allows both a choral group and an 85 piece band to be set up separately. In addition, with seats set up on the steps, the room becomes a small theatre either with a stage or in-the-round.

The Vocational Arts area is a general shop area suitable for many programs. These will be operated on a programmed basis to provide opportunities to interested students for a broad range of vocational experiences.

DESIGN DEVELOPMENT PLANS
SPACE AND AREA SUMMARY

The Academic Community		
Social Living Houses	9,411	
Mathematics	3,137	
Resource Center/AV		
Language-Reading	7,798	
Total Gross		20,346 sf
The Forum Area		
The Forum	7,800	
Food Service	2,094	
Administration	1,947	
Science	2,548	
Home Living	1,768	
Arts and Crafts	2,029	
Total Gross		18,186 sf
The Activity Area		
Gymnasium	8,948	
Dressing Rooms	4,272	
Music	2,114	
Vocational Arts	2,735	
Physical Plant	1,966	
Total Gross		20,035 sf
Service and Circulation		
The Pen	1,547	
The Pit	1,547	
Toilet Rooms	1,220	
Mechanical Rooms - 1326 sf @ 1/2	663	
Exterior Overhang - 4332 sf @ 1/3	1,444	
Total Gross		6,421 sf (9.88%)
Total Gross Area		64,988 sf
Area per student		108.31 sf

CONSTRUCTION METHODS AND MATERIALS

The school is located on a level, undeveloped site. Preliminary sub-soil investigations have revealed poor soil bearing characteristics for the upper strata. This will require sepcial consideration of the foundation design to avoid differential or unexpected building movement or settlement.

STRUCTURE		
Foundations & Footings	-	Cast-in-place concrete
Bearing Walls	-	Reinforced brick or concrete masonry
Roof Structure	-	Fabricated wood and metal truss joists
	-	Glulam beams and decking.
EXTERIOR FINISH		
Walls	-	Reinforced brick or concrete masonry
Fascia	-	Metal panels
Roofing	-	Built up asphalt
Fenestration	-	Steel doors and door frames
	-	Steel window frames
	-	Tempered shaded plate glass.
INTERIOR FINISHES		
Floors	-	Sealed concrete exposed in activity areas.
	-	Carpet in Academic Community, Music, Administration.
	-	Vinyl asbestos tile in Home Living

	- Quarry tile or epoxy in kitchen
	- Ceramic tile or epoxy in toilet rooms, showers
	- Hardwood strip floor in gymnasium
Walls	- Exposed brick or concrete masonry
	- Gypboard on metal studs.
	- Moveable wall panels.
Ceilings	- Acoustical tile on gyp-board
	- Exposed glulam beams and decking.

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MECHANICAL AND ELECTRICAL SYSTEMS

Heating Energy. The heating system will be two gas-fired prebuilt hot water boilers. Each boiler will be capable of carrying 2/3 of the maximum heating load and will operate alternately. In periods of high demand, both boilers will automatically operate. Hot water will be piped to heating and ventilating units in overhead mechanical rooms. Cal-Pacific Gas Company will serve the site with an extension of the present gas main on Homedale Road.

Domestic Hot Water. Hot water for showers and the general plumbing system will be heated from the boilers and stored in central hot water storage tanks.

Mechanical Cooling. Chilled water will be produced by a central condenser and cooling tower and will be piped to heating and ventilating units in overhead mechanical rooms.

Space Heating and Cooling. Heating and ventilating units located in overhead mechanical rooms will use hot or chilled water in water coils to condition return or intake air as controlled by room or area thermostats. Air will be supplied through ceiling diffusers and returned through peripheral return air grilles. The heating and ventilator units will be controlled by pneumatic control system with thermostats in locations to sense the average conditions.

Plumbing System. Sewage disposal will be to the existing line of the South Suburban Sanitary District located at the northwest corner of the site in Homedale Road. Water supply will be from an 8" water line of the Oregon Water Corporation on Homedale Road. Roof and site drainage will be to the adjacent drainage ditch along the north boundary. Power service will

be supplied underground by PP & L to transformers in near proximity to the building.

Main Electrical System. The main distribution system will be 277/480 volts with area transformers converting to lower voltage where required. Fluorescent and mercury vapor lighting will operate from 277 volts. Large motors, water heating, and cooking equipment will operate from 480 volts.

Lighting System. General classroom lighting will be 277 volt fluorescent tubes in commercial fixtures. A sustained light level of 85–90 foot candles will be maintained. Mercury vapor deluxe white lighting will be used in larger spaces where appropriate, including the gymnasium. Accent and special incandescent lighting will be used where appropriate in such areas as the Forum, utility areas, etc.

Program Clock System. A 12 circuit program clock system will be used. The central control panel will be located in the main office and supply bell, horn and music sound signals to all areas of the building.

Intercom and Program System. The main office, team offices, and departmental offices will be interconnected with an in-house intercom phone system. This system will also provide sound to all spaces through ceiling or wall speakers for announcements, music, radio, etc. A record player and tape deck will be a part of this system. An independent public address system for both the Forum and gymnasium will be installed to use the main speaker system. In selected classrooms, speakers may be mounted in the ceiling for use with movie projectors. Thus reducing a large noise generated by the small speakers of the projectors.

TV System. Outlets will be provided in all appropriate locations for television hookup. These will be circuited to a central lo-

cation where the system can tie into the community cable system or to a central antenna and amplification system. No major in-house television recording circuits will be installed at this time. However, these lines can be installed at a later date.

LIFE SAFETY AND FIRE CONTROL

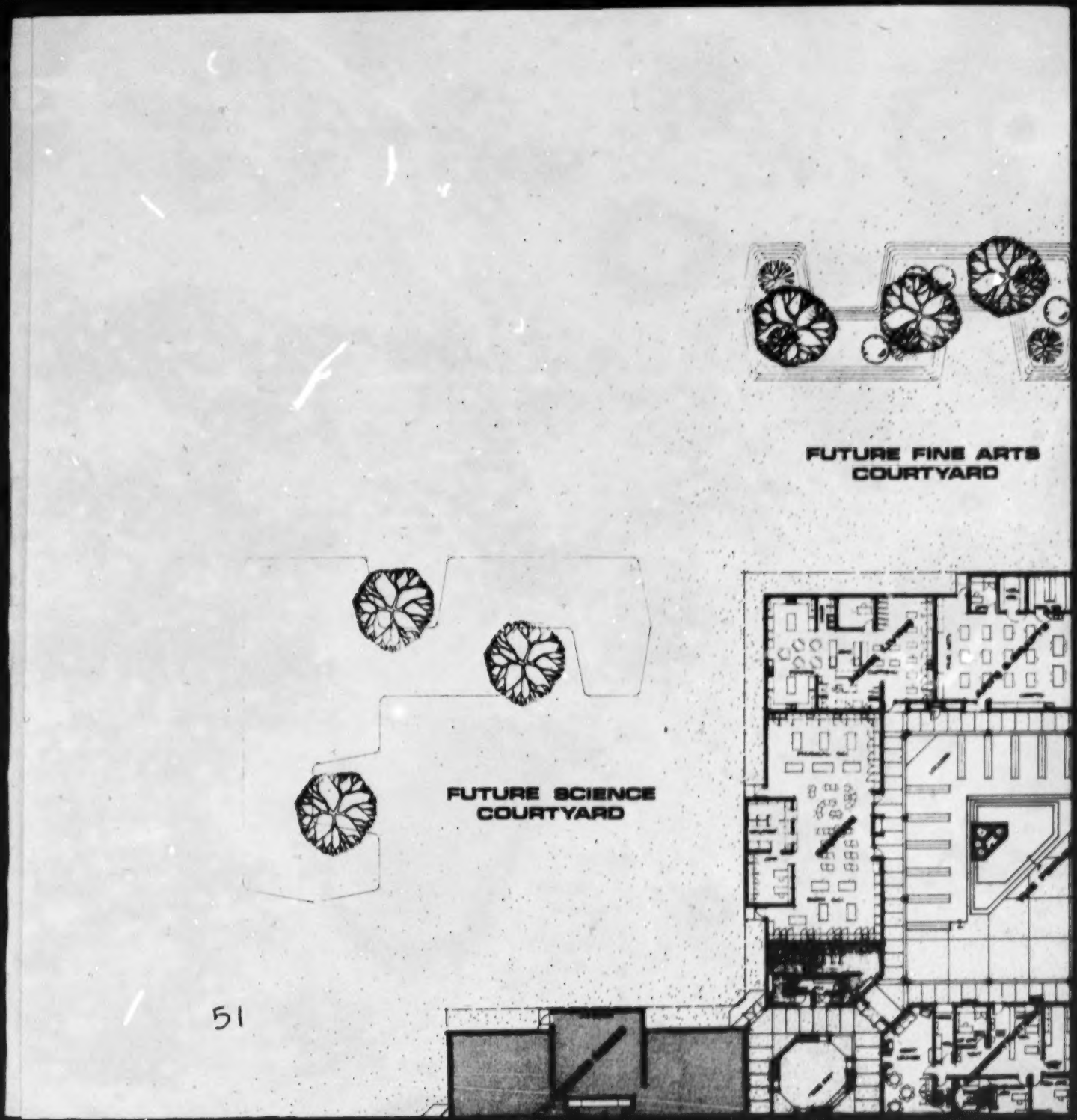
The building is under the jurisdiction of the Oregon State Fire Marshal and must comply with the provisions of the 1970 Uniform Building Code and modifications as administered by that office.

The major part of the building is classified as Group C, Division 1 Occupancy: Any building used for educational purposes through the 12th grade by 50 or more persons for more than 12 hours per week or four hours in any one day.

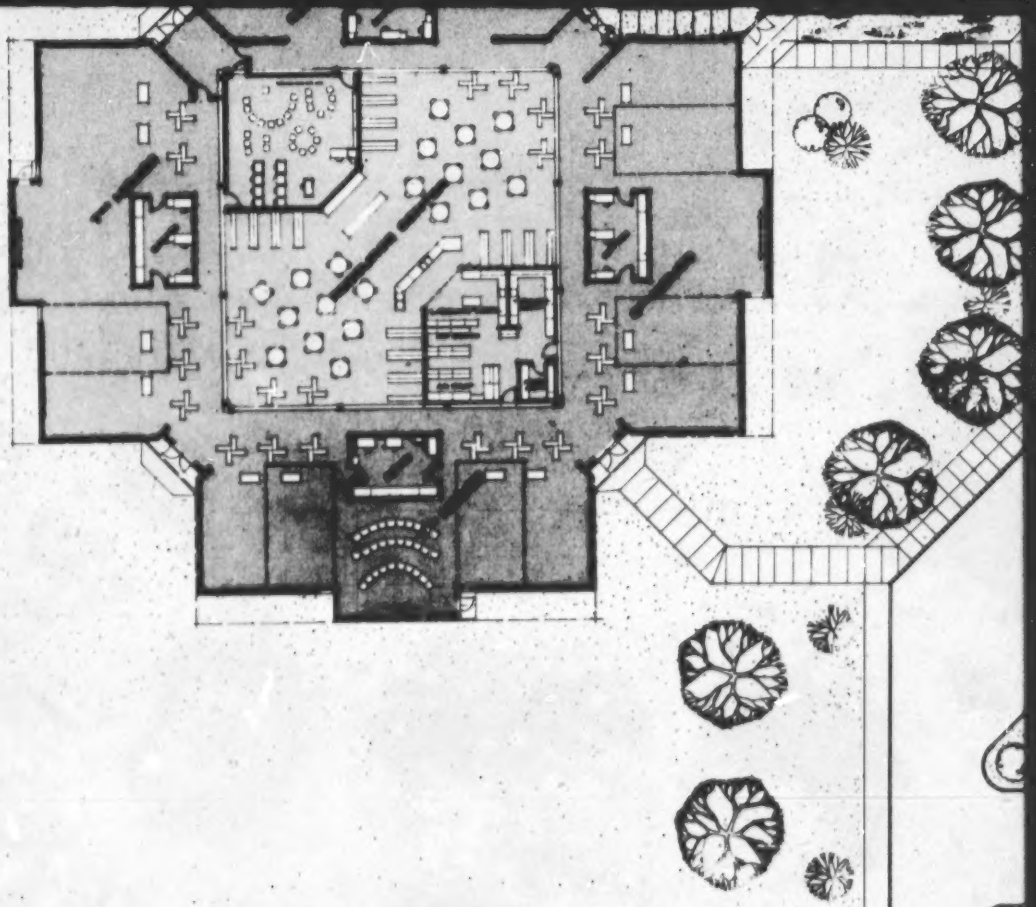
Because of their higher occupancy load in meetings, the Forum and gymnasium are classified as Group B, Division 2: Any assembly building without a stage and having an occupant load of 300 or more in the building.

The three building units will be separated at the adjoining wall lines by 2-hour rated walls and door assemblies. This creates independent building each of which has its separate exiting system. Exterior walls of brick masonry will be 4 hour fire rated. The roof structure will be either one-hour fire rated assembly throughout, or heavy-timber construction.

The construction of the building in this manner establishes a Uniform Building Code Type III one Hour or Type III Heavy Timber Construction. Material selection, construction techniques and exiting systems will be selected and designed to conform to this classification.


FUTURE FINE ARTS
COURTYARD
FUTURE SCIENCE
COURTYARD

SERVICE DRIVE

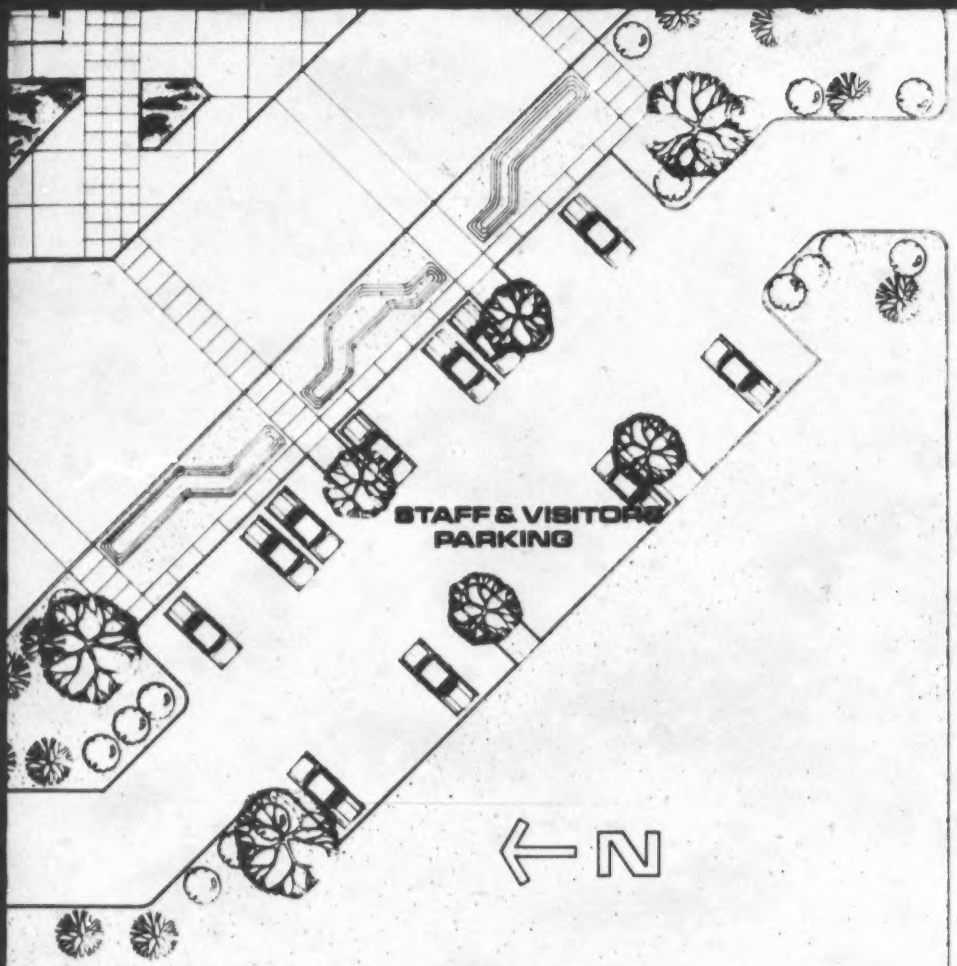


ALTAMONT JUNIOR

KLAMATH COUNTY SCHOOL DISTRICT

KLAMATH FALLS, OREGON

HOMEDALE R



HIGH SCHOOL

E PLAN & FLOOR PLAN

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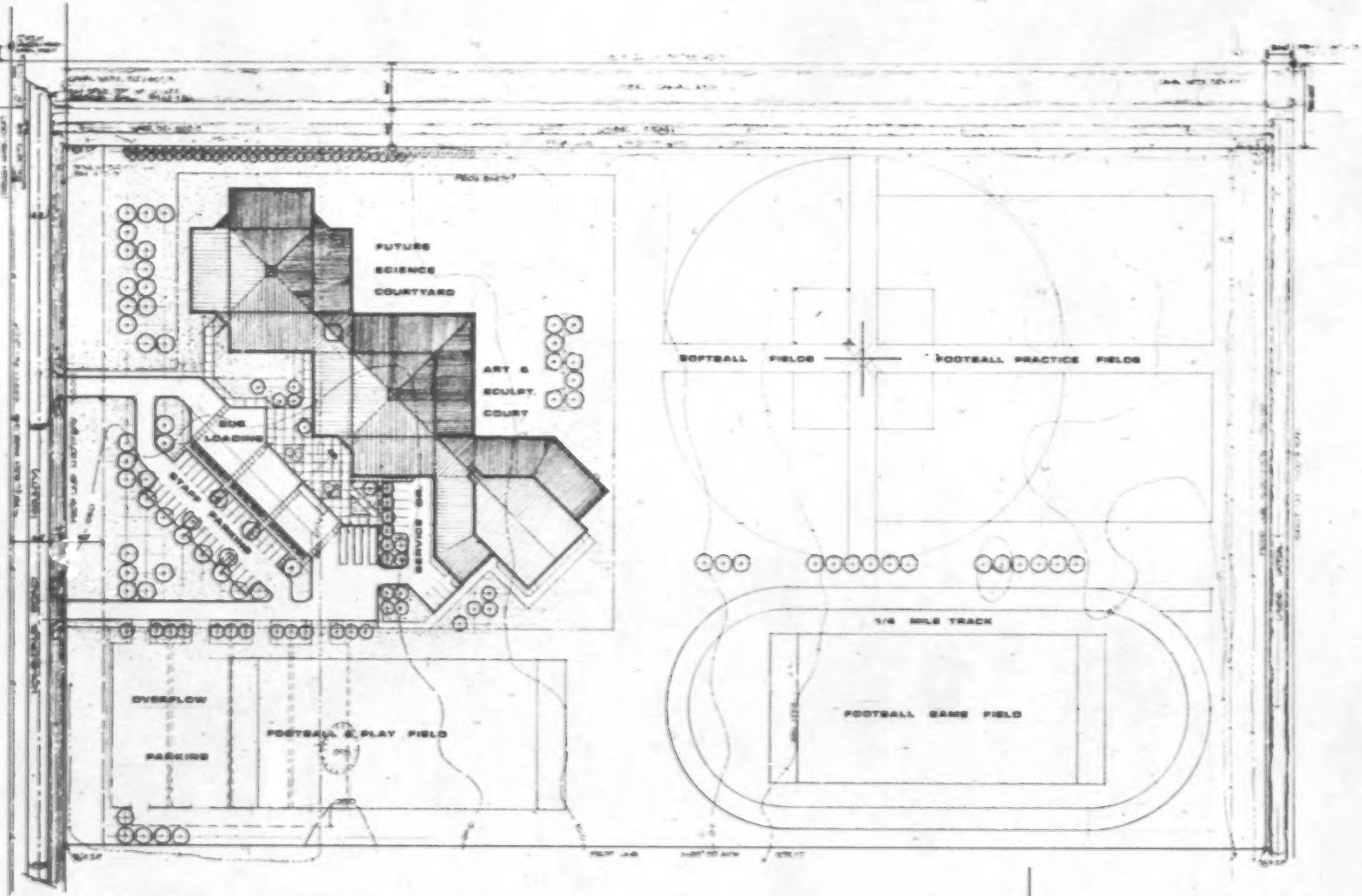
A PROFESSIONAL CORPORATION
Two Hundred South Mill Street P.O. Box 1
Springfield, Oregon 97477 503-746-8231


FUTURE
SCIENCE
COURTYARD
ART &
SCULPT.
COURT
BUS
LOADING
STAFF
PARKING
OVERFLOW
PARKING
FOOTBALL & PLAY FIELD
FOOTBALL FIELDS
FOOTBALL PRACTICE FIELDS
1/4 MILE TRACK
FOOTBALL GAME FIELD

SITE PLAN